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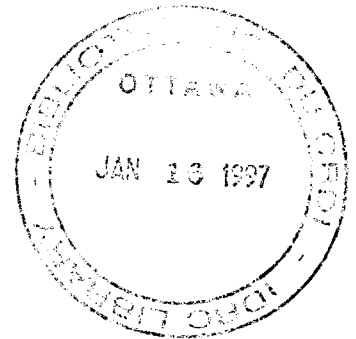
DISCUSSION PAPER

Information to SMEs in Developing  
Countries: Some Lessons  
from IDRC's Experience

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## **INTRODUCTION**

The globalization of markets, the increasing rate of technological innovations and the overwhelming priority of environmental issues have changed the nature of international competition and the roles of the states. "The free flow of information is changing the structure of the world economy and the relationships between and within nations" (1). In this context, there is a growing need to exchange information from anywhere in the world.

Small and Medium-Sized Enterprises (SMEs) are now recognized as the most dynamic centres of employment, innovation, and vital sources of entrepreneurship, particularly so in developing countries. The significance of information to the establishment, survival and growth of SMEs is also being increasingly acknowledged.

Since SMEs make up the bulk of industries in developing countries, they are encouraged to export their products/services to the highly competitive domestic markets of the Western world. The access and effective use of knowledge provide competitive edge to those SMEs that have a good grasp of the significance of the economic value of information. Nonetheless, the SME sector in developing countries severely lacks information and access to technological improvements.

Following the recent recognition of the significant role of SMEs to the socio-economic development of the developing world, several national and international organizations have attempted to strengthen this sector by creating and supporting projects that enhance its capacity. Canada's International Development Research Centre (IDRC) has for several years recognized and supported the development of the SME sector in countries of Africa, Asia, and Latin America by promoting projects which foster access to pertinent and essential information and which develop appropriate technology to the sector.

The Industry and Technology Information sub-program of IDRC's Information Sciences and Systems Division (ISSD) has supported a number of projects dealing with provision of information and consultancy services for small and medium industries, including information on patents, standards and energy. Since the inception of this programme in 1985, more than 50 projects covering different aspects of information for SMEs have been financed by the Centre. Because of the lack of basic information infrastructure in some developing countries, many of the initial projects concentrated on the building of information databases. For those projects which have gone beyond initial phase of institution building, the goal of this program has been enlarged to support information activities such as extension/consultancy services focusing on direct provision of information to its target clients, the small industries.

In 1992, the Division decided to evaluate this programme in order to determine the impact of its activities vis-a-vis SMEs, to examine what has worked or has not worked in achieving the project objectives and to determine the orientation of its programme for the future in the context of the Centre's new strategy entitled "Empowerment through knowledge" which was adopted in November 1991. The purpose of this article is to report on some of the results of this empirical study (2) with an emphasis on the effectiveness of the information programme and to suggest a course of action for future information activities to SMEs. The study has also briefly examined the future role of IDRC in this sector in the light of the announcement of Canada's Prime

Minister at the Earth Summit in Rio in June 1992 that IDRC will take a lead on environment and sustainable development issues (Agenda 21).

## **A- METHODOLOGY**

The evaluation of ISSD projects dealing with information to SMEs was conducted using four main sources of information: review of literature; review of project documents and reports; a questionnaire mailed to project managers; and interviews of staff of selected institutions and project managers in Africa, Latin America, and international organizations in Europe. Out of 50 SME-related projects identified, a questionnaire was sent to 41 project managers. Interviews were also conducted with a total of 108 representatives of SME institutions, international organizations and project managers in the aforementioned countries. On the basis of the response to the questionnaire, interviews and the result of a literature survey, conclusions were derived that are related to the nature of the Centre's involvement with institutions supporting SMEs and the present and future needs of the SME sector for information products/services.

The analysis of the information collected from the four sources are presented in two parts. Part one will assess the results of the mail survey with a focus on crucial dimensions of the sustainability of the projects (i.e, marketing, management, and maintenance). Comments from the interviews as well as findings of the analysis of the project documents will be used to enrich these results. The role of IDRC as perceived by the respondents of the mail survey as well as by the interviewees will also be analyzed in the context of Agenda 21 in the second part of the paper.

## **B- A CONCEPTUAL FRAMEWORK BASED ON THE THREE "M's" OF PROJECT SUSTAINABILITY**

The ultimate goal of any donor agency is to ensure the sustainability of its initiatives in recipient countries upon the termination of external financing. A review of literature has helped in the determination of a conceptual framework for ensuring sustainability of SME information projects. Accordingly, a model based on three "M's": marketing, management, and maintenance is proposed. The model suggests that three necessary (but not necessarily sufficient) conditions have to be met:

- **Marketing:** A strategy should be developed that, by definition, takes into account the needs of the potential users in order to conceive and deliver a product/service that satisfies them;
- **Management:** To ensure that the absorptive capacity of the recipient organization is adequate, a management approach needs to be developed which assures that a capacity building component is included in the design of the project;
- **Maintenance:** This needs to be implemented at all levels of the project components (software, hardware, management systems etc...).

The marketing and maintenance dimensions reinforce each other when a cost-recovery pricing strategy for a product/service of an organization is put in place.

## **I. SUSTAINABILITY DIMENSIONS OF THE PROGRAMME**

### **I-1 Provision of Information Products/Services to Users/Beneficiaries**

Our study reveals that SMEs have been directly targeted in fifty percent of the projects reviewed. In addition, it has also identified a wide range of target groups including: policy makers, researchers, internal staff of the executing organizations, students, government bodies, and entrepreneurs at large.

Staff of recipient organizations and researchers are found to be the key beneficiaries of information products/services provided by the projects. SMEs, in most cases, end up benefiting from a project though they may not have been the direct target. This is mainly because the information services examined by the evaluation team are located in different types of institutions, some of whom are remote from SMEs.

The project executing agencies are diverse, ranging from inter-governmental institutions, national/provincial governments, private sector organizations to NGOs. They also have diverse mandates. For instance, approximately forty percent have an implicit or explicit mission to deal with SMEs. The remaining have a more global mandate of information dissemination or creation of databank without particularly targeting small enterprises.

The study has also revealed that the projects examined have provided a variety of services to users/beneficiaries, with question/answer service being the most common. Other important services provided are: provision of documents, bibliographic searches, referral to other sources of information, and in-house publication of bulletins, newsletters, and directories.

Newsletters and bulletins are widely used information documents whereby eighty per cent of the respondents have monthly, bi-monthly, or annual publications. Also of significance are books and monographs published by forty per cent of the respondents. Other publications include: list of acquisitions, abstracts, consolidated information reports, audio-visual and teaching materials.

Technological information dominates the information offered to users/beneficiaries. Ninety per cent of the projects provide technological information and fifty five per cent provide commercial information. In addition to these, information on management, industrial designs, research data, statistics, training and industrial catalogues are also offered.

The issue of quality control of information (validity, accuracy, relevancy, accessibility, and users' friendliness) was not "properly" addressed by the respondents. About forty per cent claimed to have quality control mechanisms mostly through evaluations and updating of information databases.

Most project managers encourage users' participation and all responded that they are sensitive to user's needs and that they take them into consideration in the process of collecting information or in the selection of the type of services to be provided. Nonetheless, it is not possible to accurately determine the extent to which the information product/service provided coincides with the users' needs and/or the extent and frequency to which users' needs are assessed. Systematic users' needs surveys are included in several projects as part of the project objectives. Nonetheless, practical strategies for achieving this objective are not given by any but one, who mentioned using training seminars as a means to facilitate participation of users in order to assess their needs.

## I-2 The Delivery of Products/Services

### The Distribution Channels

Generally, information services have been provided directly to end beneficiaries. However, a large number of projects have also established indirect linkages (through an intermediary or a broker) with users. Different projects use different distribution channels to disseminate their information products/services. Our study reveals that seventy per cent of respondents use research institutions, government departments and libraries to channel information to their target groups. However, the extent to which these channels are within the reach of SMEs is something to be considered with caution. This has led to suggestions for improvement in accessibility of information to target groups and in selecting distribution channels which are more easily accessible to users.

"In almost all developing countries, Chambers of Commerce and Associations of Small Enterprises function and are active in promoting the interests of the business sector in general and small enterprises in particular." (3) This is why most donor agencies tend to favour them as providers of information to SMEs. However, there is not only a risk of lack of absorptive capacity of these institutions but also "most of the associations are inadequately staffed to offer services of value to their members... eventually the private sector organizations could become the main local providers of information, training and consultancy services to SMEs".(4) Nonetheless, one must also acknowledge the fact that SMEs are often scattered and can be difficult to reach directly.

### Promotion Tools and Strategy

Interviewees and respondents to the questionnaire have stated the use of several promotional strategies to inform potential users of the kind of information products/services available to them. The most popular mode of advertising appears to be personal contacts with actual and potential clients, followed by participation in seminars.

While the promotion strategies in use seem to be effective to some degree, the results of the evaluation exercise and interviews concluded that much effort still remains to be made in this respect. A more diversified use of the available media could be put in place in order to better inform SME's on the services offered by the main providers of information products/services.

### Pricing/Cost Recovery Mechanisms

The issue of pricing or cost-recovery deserves much attention since it is an important factor linked to the financial sustainability of donor-supported projects after the end of external assistance. Our study shows that cost-recovery has not been a very strong element in most of the projects reviewed. Forty per cent of the respondents indicated that they do not yet have a cost-recovery system in place but have expressed a strong interest in establishing one in the future. The remaining 60% have a cost-recovery system in place, all of which, with one exception, are partial cost-recovery. This is perhaps because cost-recovery was not an important issue at the time most of the projects were initially developed. It is noted, nonetheless, that the more recent projects are addressing this issue.

When asked what kind of mechanisms are used for the cost-recovery, 50% of those who have a pricing mechanism indicated the use of membership fees, 40% use government subsidies, while the remaining 10% use service charges and sale of publications to recover some of the costs incurred. The review of the project documents supports the findings of our mail survey whereby only 31% of the project proposals have included a pricing mechanism. This, however, is an acceptable percentage given the fact that the majority of the projects were just initiated.

Pricing information is a difficult task and a very sensitive issue. When pricing information products/services, determining the real value becomes very intricate. This is partly because SMEs do not generally value information and also due to the widely held notion that paying for information is like double taxation.

### I-3 Project Impact

Evaluation of project impact by the project staff seems to have been a difficult task and most likely, very little assessment has been done so far. When asked to state the extent to which a project has helped to improve the quality of products and/or services offered by SMEs and to eventually increase their competitiveness in the market, 66% of the respondents stated that they do not know how their projects have impacted users. The remaining 33% cited cases in which their respective projects have helped in areas such as: identifying appropriate equipment of production, training, transfer of technology, creating attitudinal changes to the use of technology, and lower operation and maintenance costs. Therefore, at best, one can say that all the projects have helped to raise the awareness of users to the value of information. However, the low responses to the question of specific project impact indicates that such assessment or periodic evaluation of projects is not practised.

At the national level, the main accomplishment of the projects appears to be the strengthening of national information centres and the dissemination of information to different categories of users. However, no quantification of these impacts on SMEs has been provided in the answers to this question.

The sustainability dimensions of the programme/projects can be summarized as follows:

### Strengths

- The technical and commercial information needs of users have been met with some efficiency for those projects that have gone beyond the first stage of reinforcing their documentation centres and constituting their databases. This was achieved mainly through extension and telephone inquiry services. The users'/beneficiaries' needs are also generally taken into account despite the difficulty to fulfil these needs.
- The promotional strategies that are designed to make users aware of the value of information appear to be adequate when viewed in light of the environmental constraints such as the fact that target groups are spread all over the countryside in small and sporadic clusters. Project recipients produce various publications to disseminate information to users.
- Training of personnel appears to be efficient and the majority of projects reviewed place emphasis on training of their staff.
- The majority of respondents/interviewees expressed their desire to put future emphasis on the marketing dimensions. This would increase the propensity for the sustainability of projects.

### Weaknesses

- A large proportion of projects reviewed did not focus on SMEs and have tried to serve too many target groups. This may be explained in part by the cluster of projects selected for this evaluation which included those that had SMEs listed as one of the many potential users.
- Decentralization of information services has so far been accorded very low priority by the majority of the respondents although this area is now being emphasized by projects in Latin America and also in Africa.
- The monitoring of project activities by project managers is not adequate in terms of the quality control of information provided to users. There is also insufficient built-in evaluation of the impact of projects on users.
- Cost-recovery systems have been initiated in some projects but are not very effective yet. This weakness may jeopardize the future sustainability of the activities developed by the projects.

### Room for improvement

- The training of users/beneficiaries is not accorded adequate emphasis.

- Much still remains to be done in the area of promoting the understanding of the value of information. This should be included in a marketing strategy for information services and products.
- In most projects, the documentation and reference materials are not well maintained and upgraded periodically in order to ensure that current, relevant, up-to-date, and reliable information is disseminated to users/beneficiaries.
- Target users are not making efficient use of the information services provided, partly due to inefficient marketing strategies and partly due to the fact that users are not properly identified and that the project does not focus on a single type of users.

#### I-4 DRC and its Experience in Dealing with SMEs

IDRC has been very active in the field of small-scale enterprises through a number of programs in most of its Divisions. More than 200 SME projects have been supported by IDRC since 1970 and from the review of these projects (5), one gets the impression that IDRC has more than acknowledged the crucial role SMEs play in the development of the Third World. In fact, as a recent report states: "wide range of IDRC-supported research projects focused on some aspects of small-scale enterprise. These tended to be designed and implemented in a typically independent fashion, reflecting the Centre's flexible and decentralized mode of operation. However, it gradually became apparent that there was a considerable potential room for complementarity between the activities of different parts of the Centre".(6)

Based on the interviews of project leaders and staff of international organizations, the image of IDRC is unanimously perceived as being unique in the world of international cooperation. It is the only agency committed to funding research on development issues of the South by the researchers of the South and that puts the information science on the same footing with other more "traditional sciences". It insists on the provision of useful, usable, and pragmatic outputs and promotes a "hands-off" approach with project managers of the recipient institutions. Its officers guide and advise managers of recipient institutions in the design of projects. This attitude fosters project sustainability through involvement of managers right from the beginning and ensures a highly positive learning experience on the decision-making and management of projects. IDRC-financed projects are also more flexible and better adapted to the needs of the users.

In addition, the Centre's approach is more results than process oriented. This hands off approach is not only welcomed by project managers in the South but is also the most efficient and effective way of controlling ex-post the results achieved by projects. The average financial size of an IDRC project in the Information Science and Systems Division totalling approximately \$200,000 CAD on a three years basis, it would not make economic sense to engage in costly project evaluation exercises. Emphasis has, therefore, been put on project monitoring and program evaluation. This situation will, however, likely change in the future as the new IDRC Strategy calls for larger projects.



## II. THE CHANGING ROLE OF IDRC IN THE CONTEXT OF AGENDA 21

This study was conducted prior to the United Nations Conference on Environment and Development (UNCED) held in Rio (Brazil) in June 1992. Therefore, the questionnaires and interviews of project leaders were not directly related to the environmental dimension of the projects. However, sustainable and equitable development has always been a priority of IDRC and has been taken into account in many projects.

The Rio Summit has reinforced, on the Canadian side, the key role of IDRC in the area of environmental issues. The Prime Minister of Canada announced at the UNCED that IDRC would take the lead in implementation of Agenda 21. Since the Prime Minister's announcement, IDRC has further focused the orientation of its programs on sustainable and equitable development by building on its mandate and strengths to address the research and development issues identified in Agenda 21 and at UNCED.

In response to these changes in priority, the Centre has re-organized its structure to better address the environment and sustainable and equitable development themes. Its new strategic dimensions are: more human development, better economic management, and sustainable use of the environment.

Agenda 21 has made several references to the significant role of information and information technologies in sustainable and equitable development. Chapter 34 deals with the transfer of environmentally sound technologies. It places special emphasis on the significance of the availability of scientific and technical information and the transfer of environmentally sound technologies to secure sustainable development. It points out the need for the ability of the public as well as the private sector to acquire and make use of technical and scientific information in order to undertake an environmentally sound technology transfer. Likewise, Chapter 40 deals more specifically with information for decision-making. It promotes "making relevant information accessible in the form and at time required to facilitate its use", and "ensuring that planning for sustainable development in all sectors is based on timely, reliable and usable information needs". The themes of both Agenda 21 Chapters are in line with the new IDRC strategy and IDRC's Corporate Program Framework as well as with some of the recommendations and/or comments received from IDRC project staff during interviews.

Among the activities recommended by Agenda 21 is the need for a strengthened and coordinated environmental assessment at the international level as well as the strengthening of the capacity for traditional information. Training and capacity building activities for those involved in data collection, assessment, and transformation as well as assistance to decision-makers with regards to the effective use of such information are cited among the means for improving access and management of relevant, timely and accurate information. In the same fashion, IDRC's new strategy entitled "Empowerment through Knowledge" promotes equitable access to information at the sub-national, national and regional levels. Its programmes are geared to strengthening the information handling and communication within governments, NGOs and the private sector in developing countries.

With regards to SMEs, IDRC has consistently continued to acknowledge their need for access to information on environmentally sound technologies in order to enhance their competitiveness and efficiency.

IDRC's response to Agenda 21 is indicated in its new Corporate Programme Framework which specifically mentions small and medium-scale enterprises under its theme on technology and environment. In this regards, it specifically aims to:

- promote access to technology especially for small- and medium-sized enterprises;
- develop technology management and innovation capacities and help small- and medium-sized entrepreneurs better manage technology and innovation.

The Information Science and Systems Division of IDRC has undergone various changes in response to the Agenda 21 call. It has revised its programme objectives to focus on: better access and use of information; improved collaboration; capacity building; and information innovations. It gives particular emphasis to practical research and new approaches aimed at solving information problems in developing countries. More specifically, decentralization of information functions within a country, including delivery of information to rural populations; methods of organizing information; using new information technologies to help manage natural resources; examining mechanisms for increasing the sustainability of information services, and evaluating the impact of information on development are highlighted.

### **CONCLUDING REMARKS**

IDRC has a well respected approach in the South and a clearly identified niche among the community of donors in the area of industrial information. It has a wealth of experience in dealing with SMEs. As mentioned in the preceding pages, the uniqueness of its approach to the development of Third World SMEs is confirmed by all individuals interviewed for the purposes of this study. The Centre will continue to acknowledge the key role of SMEs as one of the most urgent priorities of the developing world. IDRC will therefore not only continue its contribution to the provision of technical and trade information to SMEs but also reinforce its presence in this field through actions/projects that emphasize the marketing of databases, provide information on environmental issues and use non governmental/private organizations to disseminate it.

This evaluation exercise on information to SME's has also identified few suggestions for donor agencies. The major challenges donor agencies face seem to revolve around the following points:

- The donor community should work towards the reduction of the gap between the supply and demand of information for SMEs. Research projects on information needs and on user friendliness of the information services should be supported to reduce the gap between the supply and demand of information.
- Within projects, emphasis should be put on training activities that foster better use and management of information essential for the decision making purposes in

SMEs. Systematic involvement of the users in all stages of the project life cycle should be encouraged to increase the use of information and therefore the sustainability of the projects.

These suggestions could easily be incorporated in the existing informal policy framework (7) that has been proposed by the Committee of Donor Agencies for Small Enterprise Development, whose objectives are not only to share information and point of views but also to work towards coordinated strategies and actions at the national and regional levels.

IDRC maintains its interest in the SME sector; the Centre's regional strategies have stressed the need for support in the areas of SMEs. With the recent changes in program focus and structural reorganization of the Centre, the SME sector still continues to be regarded with considerable importance through the support of projects that promote provision of environmentally sound information technologies to SMEs.

### **REFERENCES**

- (1) TAPSCOTT, D. and CASTON, A., Paradigm Shift: The New Promise of Information Technology, New York, McGraw Hill, 1993, p. 143.
- (2) HÉNAULT, G. and MELESSE, M., Information for SME's: An Evaluation of the Industry and Technology Information Sub-Programme, Ottawa, IDRC, 1993, 152 p.
- (3) LEVITSKY, J., "Private Sector Membership Association and Support for SME's", Small Enterprise Development, 1992, Vol. 3, No 1, p. 25.
- (4) Ibid., p. 32.
- (5) MELESSE, M., "Review of the Small and Medium Scale Enterprise Projects Supported by IDRC", Unpublished Document of the IIDC, 1991, 15 p.
- (6) ENGLISH, P., "Foreword" in Small Enterprise Development and the International Development Research Centre: Support for Research, Ottawa, IDRC, 1993, 40 p.
- (7) Cooperation for Coordinated Support of Small Enterprise Development at the National Level, Committee of Donor Agencies for Small Enterprise Development, Washington, D.C., c/o The World Bank, February 1992, 21 p.



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